

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of the Claims:

1. (Currently amended) An image processing system including a plurality of linear arrays of detectors (1) imaged onto a scene of interest and an image store for receiving signals from the linear array when a detected object (2) passes through the scene;

characterised by wherein

a the plurality of linear arrays (1a-d) of detectors are spaced substantially parallel to one another to image a plurality of areas (4) of interest in a scene; and

the system further comprises a signal processor (7, 16, 17, 18) for detecting images received by the plurality of arrays and determining direction and speed of movement detected.

2. (Currently amended) The system of claim 1 wherein the detectors (1) are infra red detectors.

3. (Currently amended) The system of claim 1 wherein the detectors (1) are visible light sensitive detectors.

4. (Currently amended) The system of claim 1 wherein the detectors (1) are mm wave sensitive detectors.

5. (Currently amended) The system of any preceding claim 1 wherein each detector element in each linear array (1) has associated therewith an independent noise limiting means.

6. (Currently amended) The system of claim 5 wherein the noise limiting means at each detector element comprises an independent amplifier and filter (9).

7. (Currently amended) The system of ~~any preceding~~ claim 1 wherein each detector array (1) has its output read out (10) sequentially from each detector element.

8. (Currently amended) The system of ~~any preceding~~ claim 1 wherein the processor (7) is arranged to determine at least one of detected object range, direction of movement, speed, true direction of travel, object type.

9. (Currently amended) The system of ~~any preceding~~ claim 1 including an additional two-dimensional detector array system (11,12) which may be switched on when an object (2) is detected.

10. (Currently amended) The system of ~~any preceding~~ claim 1 wherein several systems are combined into a single unit arranged to give about 360° of azimuthal coverage.

11. (Currently amended) The system of ~~any preceding~~ claim 1 wherein outputs from the signal processor are communicated to remote monitoring stations.

12. (Cancelled)